

11-12-16W^P



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Denver, Colorado, 80202

RECEIVED
STATE CORPORATION COMMISSION
MAR 3 1983
CONSERVATION DIVISION
Wichita, Kansas

GEOLOGICAL REPORT

Oswald "B-16"

2210' FSL & 2310' FEL of Section 11

Twp. 12 South, Rge. 16 West

Ellis County, Kansas

November 29, 1982

11-12-16W

Solar Petroleum, Inc.
One Denver Place #1300
999 18th Street
Denver, Colorado 80202

Geological Report:

Oswald B-16
2210' FSL & 2310' FEL of Sec. 11
Twp. 12 South, Rge. 16 West
Ellis County, Kansas.

Contractor:

Rains & Williamson Rig 4,
Hays, Kansas.

Drilling Commenced:

November 20, 1982.

Drilling Completed:

November 28, 1982.

Casing Record:

14 3/4" surface casing set at
1039' with 500 sacks. 7" pro-
duction casing set at 3424' with
225 sacks.

Samples:

Saved and examined from 2500' to
3425' RTD. Zones of interest
are described in this report.

Drilling Time:

Recorded and plotted from 2500'
to 3425' RTD. A copy of the
time/lithology log is included
with this report.

Drillstem Tests:

None.

Electric Logs:

Compensated Neutron Density
Dual Laterolog
Electromagnetic Propagation
Microlog
By Schlumberger of Great Bend,
Kansas.

Elevations:

Kelley Bushing:	1874
Ground Level:	1869
Measurements From:	K.B.

Remarks:

Rotary measurements are 4' to
6' high to electric log measure-
ments. Log measurements are
used throughout this report.

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Formations:	Depth:	Subsea Datum:
Anhydrite	1042'	+ 832
Dover Lime	2534'	- 660
Tarkio Lime	2576'	- 702
Elmont Lime	2627'	- 753
Howard Lime	2698'	- 824
Topeka Lime	2761'	- 887
Heebner Shale	3034'	-1160
Toronto Lime	3053'	-1179
Lansing-Kansas City	3082'	-1208
Base of Kansas City	3327'	-1453
Arbuckle Dolomite	3354'	-1480
Rotary Total Depth	3425'	-1551
Log Total Depth	3429'	-1555

Lithology: Zones of Interest

Topeka Lime:

2761-2776: Ls; buff, crystalline, fossiliferous, dense, poor crystalline porosity, rare fossil porosity, trace of dark oil staining, no free oil or odor. Occassional pinhole porosity with a trace of oil staining.

2814-2821: Ls; gray, light gray, fine crystalline, slightly fossiliferous, scattered pinhole porosity, fair dark oil staining and saturation, show of free oil, faint odor.

2970-2980: Ls; light gray, fine to medium crystalline, dense, very rare fossil and pinhole porosity, rare oil staining and saturation, trace of free oil, no odor.

2990-3008: Ls; poor sample qualith; mostly white chalky to light gray, crystalline, slightly fossiliferous, slight fossil and pinhole porosity, scattered oil staining and saturation, very slight show of free oil, very faint odor.

3008-3026: Ls; as described above with a very slight show of free oil, very faint odor.

Toronto Lime:

3053-3070: Ls; light gray, fine crystalline, slight to fair crystalline porosity, scattered oil staining and saturation, slight show of free oil, very faint odor.

Lithology: Zones of Interest Cont....

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Lansing-Kansas City:

- 3082-3103: Ls; light gray, buff, mostly fine crystalline, dense, slightly fossiliferous, very slight fossil and crystalline porosity, very rare pinhole porosity, rare to scattered oil staining and saturation, slight show of free oil, no odor.
A zone
- 3110-3122: Ls; light gray, fine to medium crystalline, dense, slightly fossiliferous, poor crystalline porosity, rare pinhole porosity, scattered oil staining and saturation, slight show of free oil, no odor, with gray and white chert.
B zone
- 3126-3132: Ls; light gray, fine to medium crystalline, dense, poor crystalline porosity, rare oil staining and saturation, very slight show of free oil, no odor.
C zone
- 3132-3148: Ls; cream, slightly fossiliferous, medium crystalline, dense, poor crystalline porosity, rare oil staining and saturation, trace of free oil, no odor, with white chert.
D zone
- 3155-3160: Ls; gray, brown, slightly mottled and fragmental, dense, very poor porosity, trace of dark residual oil staining, no free oil or odor.
E zone
- 3163-3176: Ls; light gray, fine to medium crystalline, dense, rare fossiliferous, rare cream oolitic LIME, very poor porosity, very rare oil staining, trace of free oil, no odor, with gray and white chert.
F zone
- 3178-3184: Ls; white, light gray, slightly oolitic, scattered oolitic and oolitic porosity, scattered oil staining and partial saturation, slight show of very dark free oil, no odor.
G zone
- 3218-3235: Ls; gray, mostly fine crystalline, dense, poor crystalline porosity, trace of dark oil staining, no free oil or odor, with gray chert.
H zone

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Lithology: Zones of Interest Cont....

3238-3254: Ls; light gray, medium crystalline, slightly fossiliferous and fragmental, poor crystalline porosity, a few small vugs, very rare oil staining and saturation, no free oil or odor.
I zone

3257-3277: Ls; white, buff, fine crystalline, dense to chalky, rare fossiliferous, very rare pin-hole porosity, very rare oil staining and partial saturation, no free oil or odor, with light gray, chert.
J zone

3290-3306: Ls; cream, light gray, fine crystalline, dense, occasional oolitic and oolitic porosity, trace of oil staining, no free oil or odor.
K zone

3316-3327: Ls; light gray, crystalline to sucrosic, dense, very poor crystalline porosity.
L zone

Arbuckle Dolomite:

3354-3358: Dol; tan, light gray, fine to medium crystalline, slight crystalline porosity, scattered oil staining and saturation, show of free oil; faint odor.

3358-3370: Dol; tan, light gray, fine to medium crystalline, slight to fair crystalline porosity, a few small vugs, fair oil staining and saturation, show of free oil, fair odor, with white and light gray, chert.

3370-3384: Dol; tan, light gray, fine to medium crystalline, fair crystalline porosity, fair oil staining and saturation, also a small amount of sandy DOLOMITE, medium grained, a few coarse quartz grains and more chert.

3390-3404: Dol; tan, light gray, mostly medium crystalline, fair crystalline porosity, rare oolitic with occasional oolitic porosity, scattered oil staining and saturation, slight show of free oil (dark and heavy), faint odor, more chert and sandy DOLOMITE.

3404-3418: Dol; tan, light gray, medium to coarse crystalline, fair crystalline porosity, rare vugular porosity, rare to scattered oil staining, very slight show of free oil (dark), very faint odor, more chert as described above.

Remarks and Recommendations:

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When correlating the drilling time depth with the electric log, the measurement difference is inconsistent. Log measurements are from 4' to 6' lower on all marker beds. Log total depth is 4' lower than rotary total depth.

During the drilling of the well, numerous zones of oil staining were noted in the Topeka, Toronto, Lansing-Kansas City and in the Arbuckle. No drillstem tests were taken. 7" production casing was set at 3424' for further testing of the well through perforations. Zones recommended for perforating are those with a history of producing in the area and those which appear favorable on the various electric logs that were run in conjunction with the well. The upper Arbuckle and upper Topeka should be commercially productive.

Respectfully submitted,

Michael C. Whisler

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